CENTER FOR DISEASE CONTROL

June 15, 1979 / Vol. 28 / No. 23

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Adverse Reactions to Smallpox Vaccination — 1978

Adverse reactions to smallpox vaccination continued to be noted by CDC during 1978.

Case 1, California: On August 15, 1978, a 53-year-old man with chronic lymphocytic leukemia was vaccinated with vaccinia virus as proposed therapy for a presumed herpes simplex infection. Over the next week, increasing inflammation and eventually necrosis were noted at the vaccination site. Peripheral vaccinial lesions appeared; vaccinia virus was identified from several lesions by fluorescent antibody (FA) testing. The patient recovered after 3 courses of vaccinia immune globulin (VIG) and 1 course of methisazone.

Case 2, California: On the advice of airline personnel and a military recruiting officer, a 29-year-old woman received a smallpox vaccination in June 1978 for travel to Germany. Nine days later, she was hospitalized with fever and a necrotic ulcer at the vaccination site. FA staining of scrapings from a chin pustule was positive for vaccinia. She recovered without use of VIG.

Case 3, New Jersey: A 56-year-old U.S. Army reservist, who was taking cyclophosphamide for chronic lymphocytic leukemia, received a smallpox vaccination on May 7, 1978, at a military vaccination clinic. Within 2 weeks, a painful ulcer was noted at the vaccination site. Because of the appearance of an increasing number of peripheral lesions (from 1 of which vaccinia virus was eventually isolated), and because of continued enlargement of the initial ulcer, he was treated with VIG, methisazone, adenine arabinoside, transfer factor, and vaccinia hyperimmune plasma. Eventual recovery was complicated by *Pseudomonas* sepsis and the need for a skin graft at the vaccination site.

Case 4, Australia: A woman, 8 weeks pregnant, received a smallpox vaccination. A 500-gm infant, born at 24 weeks gestation, survived for 1 hour. Vaccinia virus was isolated from 1 of multiple skin lesions and from a lesion found in the lung at the postmortem examination.

Reported by JH David, MD, Mountain View, California, C Brass, MD, Stanford University Medical Center, R Roberto, MD, LG Dales, MD, and J Chin, MD, State Epidemiologist, California Dept of Health, in California Morbidity, *No. 33, August 25, 1978, and No. 37, September 23, 1978; FJ Brescia, MD, Millburn, New Jersey; R Altman, MD, State Epidemiologist, New Jersey State Dept of Health;* Australia Communicable Disease Intelligence Bulletin, *April 6-19, 1978; Immunization Div, Bur of State Services, Bur of Smallpox Eradication, and Field Services Div, Bur of Epidemiology, CDC.*

Editorial Note: The hospitalization charges for cases 1 and 3 totaled $22,010.

These cases illustrate several important points:

1. Smallpox vaccine, a live virus vaccine, is contraindicated in persons with hematologic or other malignancies, in persons on immunosuppressive therapy, and in pregnant women (*1*).

Smallpox Vaccination – Continued

2. Smallpox vaccine apparently continues to be used by physicians for treatment of herpetic infections despite the failure to demonstrate efficacy (*1,2*) and the proven danger of this therapy (*2,3*).

3. Airlines, travel agents, health facilities, and others who provide advice to travelers should be certain that their information regarding need for smallpox vaccination conforms to the latest international travel regulations.

4. Health-care providers should be aware that smallpox vaccination of active duty and active reserve U.S. military personnel is continuing. In addition, the military is not yet actively discouraging smallpox vaccination of dependents (*4*).

5. Fetal vaccinia, although very rare, can occur in offspring of vaccinees.

These cases and most of the others reported to CDC were avoidable. The United States no longer requires smallpox vaccination of any travelers (*5*). There are no current medical or epidemiologic reasons for countries to require smallpox vaccine for anyone except the few laboratory workers likely to have contact with the variola virus (*6*). The number of countries which still, for administrative reasons, require vaccination as a condition of entry is steadily decreasing.*

Routine smallpox vaccination of U.S. children was discontinued in 1971. Routine smallpox vaccination of U.S. hospital employees was discontinued in 1976. Despite this, more than 4.4 million doses of smallpox vaccine were distributed in the United States during 1978 (*7*).

Public health officials should ensure that smallpox vaccine providers in their areas are aware of the most current recommendations for its use. Use of vaccinia virus should be limited to persons with valid indications. The vast majority of U.S. travelers go to Mexico, Canada, Europe, Japan, the Caribbean Islands, and Israel. None of these areas require smallpox vaccination for entry. When counseling persons traveling to a country still requiring smallpox vaccination for administrative reasons, health-care providers should be aware that the World Health Organization's International Health Regulations provide for smallpox vaccination waiver letters to be issued to travelers for whom vaccination is contraindicated for health reasons. In view of the apparent success of the smallpox eradication effort, some authorities have advocated giving such letters, signed by a physician and validated by a health agency, to all travelers. The only country that had been refusing to accept such letters (*8*)—except for rare individual actions by an immigration officer acting contrary to national policy—recently stopped requiring certificates for travelers from the United States. As with other vaccinations, complications of smallpox vaccination should continue to be reported to local and state health departments and to CDC.

References

1. Advisory Committee on Immunization Practices: Smallpox vaccine. MMWR 27:156, 1978
2. Kern AB, Schiff BL: Smallpox vaccinations in the management of recurrent herpes simplex: A controlled evaluation. J Invest Dermatol 33:99-102, 1959
3. Lane JM, Ruben FL, Abrutyn E, Millar JD: Deaths attributable to smallpox vaccination, 1959 to 1966 and 1968. JAMA 212:441-444, 1970
4. Departments of the Army, the Navy, the Air Force, and Transportation: Medical Services Immunization Requirements and Procedures. Washington, D.C., 7 Jun 1977, p 6
5. MMWR 27:295, 1978

*As of June 7, 1979, the following countries require smallpox vaccination for direct travel from the United States: **Africa:** Angola, Benin (for stay >2 weeks), Botswana, Cameroon, Central African Republic, Chad, Comoros, Congo, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Guinea, Ivory Coast, Lesotho, Libyan Arab Jamahariya, Madagascar, Mali, Mozambique, Namibia, Rhodesia, Sao Tome and Principe, Seychelles, Sierra Leone, South Africa, Sudan Uganda, Upper Volta, Zaire. **Asia:** Brunei, Democratic Kampuchea, East Timor, Iran, Lao People's Democratic Republic, Mongolia, Nepal, Philippines, Ryukyu Islands (unofficial), Saudi Arabia (during pilgrimage), Viet Nam. **Americas:** Belize, Bolivia.

Smallpox Vaccination – Continued

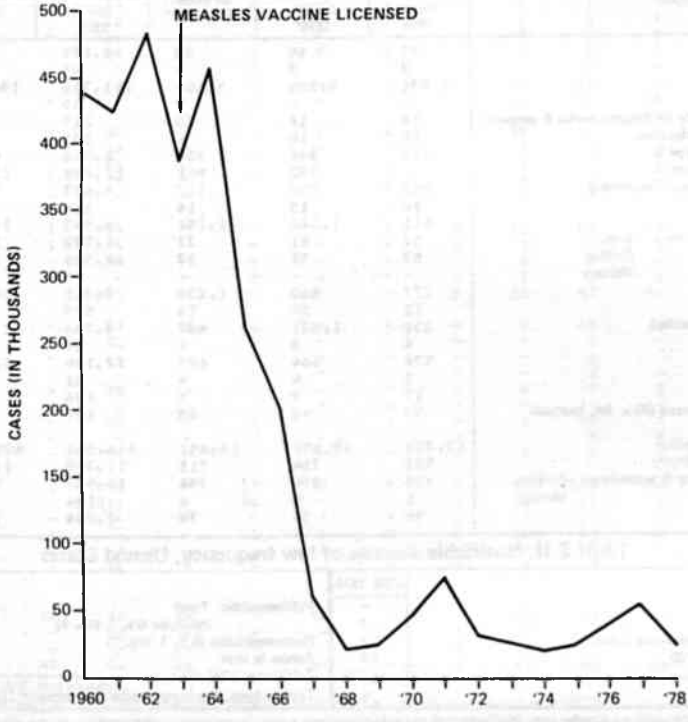
6. World Health Organization: Functioning of the International Health Regulations (1969) for the period 1 January to 31 December 1977. Weekly Epidemiological Record 53:354-355, 1978
7. CDC: Biologics Surveillance Report No. 76. Annual Summary 1978. Mar 1979
8. California Department of Health: Smallpox vaccination requirements for international travel. California Morbidity (11), 23 Mar 1979

Surveillance Summary

Measles – United States, 1978

As of December 31, 1978, a provisional total of 27,310 cases of measles were reported from 55 reporting areas including 50 states, the District of Columbia, Guam, New York City, Puerto Rico, and the Virgin Islands. This figure represents a 51.2% decrease from 55,962 cases reported as of December 31, 1977, from the same areas (Figure 1). Thirty-nine (70.9%) of the 55 reporting areas registered a decrease in measles activity compared to 1977, and 16 (29.1%) reported an increase. Forty-two reporting areas experienced incidence rates below the 1978 national average (41.0 measles cases per 100,000 population less than 18 years) compared to 40 areas in 1977. Three states (New Mexico, South

FIGURE 1. Reported measles cases, United States, 1960-1978*



*1978 data are provisional.

Measles — Continued

Dakota, and Wyoming) reported no cases in 1978. An additional 7 areas (Alaska, Delaware, District of Columbia, Idaho, Nebraska, Rhode Island, and the Virgin Islands) reported less than 10 cases each over the entire year. Overall, 40 states, 3 territories, and the District of Columbia were reported to be measles-free for 4 or more consecutive weeks at some time during 1978.

Thirteen reporting areas (Florida, Guam, Illinois, Maine, Michigan, Montana, New York State, North Dakota, Oregon, Tennessee, Virginia, West Virginia, and Wisconsin) had rates above the national average. Six of these areas had rates greater than 100 cases per 100,000 population under 18 years: Maine (398.8), Michigan (274.9), West Virginia (196.7), Virginia (187.0), Wisconsin (104.3), and North Dakota (102.9). Nine states reported more than a thousand cases each: Michigan (8,006), Virginia (2,837), Wisconsin (1,494), New York State (1,439), Illinois (1,428), Maine (1,320), Florida (1,185), West Virginia (1,068), and Texas (1,033). Although these 9 states constitute only one-quarter of the total U.S. population, they accounted for almost three-fourths (72.5%) of all reported cases.

Reported by Immunization Div, Bur of State Services, CDC.

TABLE I. Summary — cases of specified notifiable diseases, United States

[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	23rd WEEK ENDING		MEDIAN 1974-1978**	CUMULATIVE, FIRST 23 WEEKS		MEDIAN 1974-1978**
	June 9, 1979	June 10, 1978*		June 9, 1979	June 10, 1978*	
Aseptic meningitis	75	59	50	1,175	928	870
Brucellosis	2	3	3	43	70	81
Chickenpox	5,036	5,304	5,304	151,718	106,102	106,102
Diphtheria	–	–	2	59	35	102
Encephalitis: Primary (arthropod-borne & unspec.)	16	18	16	217	259	292
Post-infectious	10	10	8	101	90	114
Hepatitis, Viral: Type B	252	342	334	6,064	6,687	6,541
Type A	452	582	611	12,708	12,670	15,697
Type unspecified	203	200	187	4,627	3,589	3,760
Malaria	26	15	14	224	240	156
Measles (rubeola)	611	1,142	1,191	9,543	18,434	18,434
Meningococcal infections: Total	57	51	27	1,393	1,277	836
Civilian	• 57	51	27	1,386	1,259	825
Military	–	–	–	7	18	17
Mumps	277	640	1,035	9,345	10,783	28,441
Pertussis	13	34	19	525	872	532
Rubella (German measles)	330	1,021	697	8,736	13,130	13,003
Tetanus	4	3	1	24	30	27
Tuberculosis	574	664	643	12,189	12,447	13,249
Tularemia	3	4	4	51	38	46
Typhoid fever	17	9	9	186	218	148
Typhus fever, tick-borne (Rky. Mt. spotted)	53	48	48	197	185	183
Venereal diseases:						
Gonorrhea: Civilian	17,737	19,691	19,691	416,341	409,222	410,394
Military	532	734	715	11,768	11,072	11,931
Syphilis, primary & secondary: Civilian	456	354	394	10,547	9,065	9,065
Military	6	6	6	134	137	137
Rabies in animals	96	75	70	2,054	1,361	1,296

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1979		CUM. 1979
Anthrax	–	Poliomyelitis: Total	17
Botulism	7	Paralytic (Pa. 1, Mo. 1)	14
Congenital rubella syndrome (Okla. 1)	27	Psittacosis (Ups. N.Y. 1, Wis. 1)	58
Leprosy (Md. 1, Tex. 3)	78	Rabies in man	1
Leptospirosis	14	Trichinosis (Ohio 1)	65
Plague	4	Typhus fever, flea-borne (endemic, murine)† (Tex. 5)	14

*Delayed reports received for calendar year 1978 are used to update last year's weekly and cumulative totals.

**Medians for gonorrhea and syphilis are based on data for 1976-1978.

†Delayed report: Typhus, murine: P.R. +1

TABLE III. Cases of specified notifiable diseases, United States, weeks ending June 9, 1979, and June 10, 1978 (23rd week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1979	1979	1979	1979	CUM. 1979	1979	1978*	1979	1979	1979	1979	1979	CUM. 1979
UNITED STATES	75	2	5,036	–	59	16	18	10	252	452	203	26	224
NEW ENGLAND	4	–	973	–	–	2	–	–	7	19	15	3	14
Maine †	–	–	152	–	–	–	–	–	–	6	3	–	1
N.H. †	–	–	48	–	–	–	–	–	–	–	–	–	–
Vt. †	–	–	48	–	–	–	–	–	1	4	–	–	–
Mass.	3	–	289	–	–	1	–	–	4	5	11	–	4
R.I.	–	–	78	–	–	–	–	–	1	1	–	–	3
Conn.	1	–	358	–	–	1	–	–	1	3	1	3	6
MID. ATLANTIC	4	–	396	–	–	2	2	1	43	45	10	6	30
Upstate N.Y.	1	–	162	–	–	1	–	–	7	14	2	2	6
N.Y. City	1	–	165	–	–	1	1	–	12	8	5	2	15
N.J. †	1	–	NN	–	–	–	–	–	18	12	3	1	4
Pa.	1	–	69	–	–	–	1	1	6	11	–	1	5
E.N. CENTRAL	3	–	1,790	–	1	–	3	–	28	62	12	1	12
Ohio †	–	–	148	–	–	–	1	–	12	19	–	–	2
Ind. †	–	–	102	–	–	–	1	–	6	7	6	–	1
Ill.	1	–	286	–	–	–	–	–	1	8	–	–	4
Mich.	2	–	570	–	–	–	1	–	5	24	5	1	5
Wis. †	–	–	684	–	1	–	–	–	4	4	1	–	–
W.N. CENTRAL	–	–	357	–	–	–	–	2	10	17	3	1	10
Minn.	–	–	1	–	–	–	–	–	2	5	1	–	3
Iowa	–	–	246	–	–	–	–	–	3	4	–	–	–
Mo.	–	–	1	–	–	–	–	–	3	4	2	–	3
N. Dak.	–	–	3	–	–	–	–	–	–	–	–	–	–
S. Dak.	–	–	3	–	–	–	–	–	–	4	–	–	–
Nebr.	–	–	40	–	–	–	–	–	–	–	–	–	2
Kans.	–	–	63	–	–	–	–	2	2	–	–	1	2
S. ATLANTIC	10	–	335	–	–	8	3	3	53	65	46	–	32
Del.	–	–	17	–	–	–	–	–	–	–	–	–	1
Md.	3	–	46	–	–	4	–	1	12	8	16	–	5
D.C. †	–	–	13	–	–	–	–	–	2	1	–	–	5
Va. †	–	–	16	–	–	1	1	–	9	3	7	–	9
W. Va.	–	–	124	–	–	–	–	–	2	1	1	–	1
N.C.	–	–	NN	–	–	3	1	–	2	5	4	–	1
S.C.	1	–	–	–	–	–	–	–	–	1	–	–	1
Ga.	–	–	2	–	–	–	–	–	10	11	–	–	2
Fla. †	6	–	117	–	–	–	1	2	16	35	18	–	7
E.S. CENTRAL	–	–	52	–	–	1	4	–	26	26	3	1	4
Ky.	–	–	43	–	–	–	–	–	7	8	–	–	–
Tenn. †	–	–	NN	–	–	1	2	–	14	7	3	–	–
Ala.	–	–	9	–	–	–	2	–	3	4	–	–	2
Miss.	–	–	–	–	–	–	–	–	2	7	–	1	2
W.S. CENTRAL	32	1	459	–	–	–	1	2	32	67	65	1	14
Ark.	–	1	4	–	–	–	1	–	1	5	5	–	–
La.	4	–	NN	–	–	–	–	–	8	8	4	–	2
Okla. †	2	–	–	–	–	–	–	–	1	2	7	–	2
Tex.	26	–	455	–	–	–	–	2	22	52	49	1	10
MOUNTAIN	5	–	93	–	1	–	–	–	9	49	13	–	6
Mont.	–	–	51	–	–	–	–	–	–	1	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	6	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	2	–	–	1
Colo.	3	–	39	–	–	–	–	–	6	5	1	–	2
N. Mex.	–	–	3	–	–	–	–	–	–	15	–	–	–
Ariz.	–	–	NN	–	1	–	–	–	1	10	6	–	3
Utah	1	–	–	–	–	–	–	–	–	4	4	–	–
Nev.	1	–	–	–	–	–	–	–	2	6	2	–	–
PACIFIC	17	1	581	–	57	3	5	2	44	102	36	13	102
Wash. †	4	–	516	–	56	–	–	–	3	15	4	–	4
Oreg.	1	–	–	–	–	–	–	1	9	15	–	–	4
Calif. †	11	1	–	–	1	3	5	1	31	66	32	13	93
Alaska	–	–	1	–	–	–	–	–	–	1	–	–	–
Hawaii	1	–	64	–	–	–	–	–	1	5	–	–	1
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
P.R.	–	–	20	–	–	–	–	1	2	7	4	–	1
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–
Pac. Trust Terr.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: Fla. +1; Chickenpox: Maine –1, N.H. +55, D.C. +7, Fla. +158, Wash. –1, Calif. +88; Diph.: Wash. –1; Enceph, post: Ind. +1, Fla. +3; Hep. B: N.J. +1, D.C. +1, Fla. +23, Tenn. +2, Wash. –1; Hep. A: N.H. +1, Vt. +2, Wis. –1, Fla. +41, Tenn. –7, Okla. +1, Wash. –1; Hep. unsp.: Vt. +1, N.J. –4, Va. –1, Fla. +3, Tenn. +2, Wash. +1; Malaria: Ohio +1, Fla. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 9, 1979, and June 10, 1978 (23rd week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	1979	1979	CUM. 1979	CUM. 1979
UNITED STATES	611	9,542	18,434	57	1,393	1,277	277	9,345	13	330	8,736	24
NEW ENGLAND	5	254	1,800	4	63	70	7	344	2	30	1,202	3
Maine	–	11	1,254	–	2	4	3	124	–	1	61	–
N.H.†	1	34	35	–	5	6	–	4	–	–	92	–
Vt.	3	93	24	1	4	2	1	6	–	–	371	–
Mass.†	–	11	168	1	17	26	1	27	2	22	396	2
R.I.	–	103	7	–	5	12	1	23	–	5	70	–
Conn.	1	2	312	2	30	20	1	160	–	2	210	1
MID. ATLANTIC	85	1,036	1,561	11	203	202	43	798	2	63	1,553	5
Upstate N.Y.	11	509	1,043	5	73	62	2	92	2	43	808	1
N.Y. City	69	467	173	2	54	50	7	85	–	17	195	3
N.J.†	5	39	56	3	51	43	29	427	–	3	288	–
Pa.	–	21	289	1	25	47	5	194	–	–	262	1
E.N. CENTRAL	184	2,437	8,167	3	130	123	71	4,026	2	61	1,993	1
Ohio†	15	134	355	2	45	25	26	1,369	–	–	84	–
Ind.†	6	156	143	–	28	21	5	221	–	12	655	–
Ill.	104	1,156	904	–	3	25	3	766	2	27	144	–
Mich.	40	596	5,535	1	41	41	19	809	–	21	916	1
Wis.†	19	395	1,230	–	13	11	18	861	–	1	194	–
W.N. CENTRAL	118	1,238	336	–	38	49	4	597	–	27	332	–
Minn.	99	810	29	–	9	8	–	6	–	3	34	–
Iowa	–	14	50	–	5	9	4	216	–	1	50	–
Mo.	1	360	7	–	17	22	–	167	–	–	28	–
N. Dak.	4	10	178	–	–	3	–	1	–	–	8	–
S. Dak.	–	1	–	–	2	2	–	3	–	–	2	–
Nebr.	–	–	5	–	–	–	–	5	–	22	133	–
Kans.	14	43	67	–	5	5	–	199	–	1	77	–
S. ATLANTIC	74	1,412	3,839	17	345	324	27	342	4	39	998	6
Del.	–	1	5	–	3	1	1	18	–	–	2	–
Md.	–	7	28	2	27	15	13	59	–	–	21	–
D.C.	–	–	47	1	2	1	–	1	–	–	1	–
Va.	34	199	2,211	7	52	42	5	69	–	15	159	1
W. Va.†	–	48	932	–	6	6	1	74	–	–	95	–
N.C.†	–	102	88	1	52	69	1	48	–	7	445	3
S.C.	–	116	182	–	47	21	–	2	–	–	55	–
Ga.	5	337	12	1	57	39	–	3	–	–	5	–
Fla.†	35	602	334	5	99	130	6	68	4	17	215	2
E.S. CENTRAL	4	136	1,120	3	110	105	20	981	1	9	237	5
Ky.	2	22	90	1	19	16	17	773	–	7	55	–
Tenn.†	–	49	780	1	35	27	1	80	–	–	80	–
Ala.†	–	46	91	1	26	34	2	14	1	1	32	5
Miss.	2	19	159	–	30	28	–	114	–	1	70	–
W.S. CENTRAL	23	838	845	10	245	189	75	1,486	–	3	177	4
Ark.	–	6	13	1	23	16	1	749	–	–	5	1
La.	17	224	304	2	98	68	–	34	–	–	25	–
Okla.	–	22	11	–	20	16	–	–	–	–	22	–
Tex.	6	586	517	7	104	89	74	703	–	3	125	3
MOUNTAIN	3	212	198	1	62	29	1	221	–	18	399	–
Mont.†	–	53	97	1	5	2	–	5	–	–	55	–
Idaho	–	4	1	–	4	2	–	3	–	10	172	–
Wyo.	–	–	–	–	1	–	–	–	–	–	–	–
Colo.	–	31	24	–	4	2	1	65	–	–	25	–
N. Mex.	–	30	–	–	4	5	–	7	–	–	6	–
Ariz.	1	68	18	–	30	11	–	47	–	4	117	–
Utah	–	15	44	–	6	4	–	84	–	4	24	–
Nev.	2	11	14	–	8	3	–	10	–	–	–	–
PACIFIC	115	1,980	568	8	197	186	29	550	2	80	1,845	–
Wash.†	91	1,052	53	–	26	32	2	173	–	4	158	–
Oreg.	–	52	136	1	12	12	1	54	–	3	68	–
Calif.	23	800	376	7	147	135	11	246	1	71	1,606	–
Alaska	1	18	–	–	4	5	–	8	–	1	2	–
Hawaii	–	60	3	–	8	2	15	69	1	1	11	–
Guam	NA	2	25	–	–	–	NA	6	NA	NA	3	–
P.R.	8	249	147	–	–	2	6	414	1	1	30	3
V.I.	–	4	6	–	2	–	–	4	–	–	–	–
Pac. Trust Terr.	NA	5	496	–	1	2	NA	16	NA	NA	–	–

NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: N.H. +1, N.J. +8, Ind. –1, Wis. –3, Fla. +14, Tenn. –3, Wash. –4; Men. inf.: Ind. +3, Fla. +21, Wash. +5; Mumps: Fla. +4, Tenn. –1; Pertussis: W.Va. –2; Rubella: N.H. +1, Mass. +18, N.J. +8, Ohio –1, Wis. +1, N.C. –5, Fla. +11, Tenn. –6, Mont. +1; Tetanus: Ala. –1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 9, 1979, and June 10, 1978 (23rd week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1979	CUM. 1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	CUM. 1979
UNITED STATES	574	12,189	51	17	186	53	197	17,737	416,341	409,222	456	10,547	9,065	2,054
NEW ENGLAND	12	326	1	–	14	–	–	517	10,687	10,536	14	177	284	22
Maine†	–	23	–	–	1	–	–	31	734	804	–	5	7	16
N.H.†	1	8	–	–	–	–	–	31	374	478	–	2	4	1
Vt.	1	15	–	–	–	–	–	10	236	265	–	–	3	–
Mass.†	2	180	1	–	9	–	–	219	4,333	4,608	7	111	182	4
R.I.	4	30	–	–	2	–	–	23	869	759	–	6	11	–
Conn.	4	70	–	–	2	–	–	203	4,141	3,622	7	53	77	1
MID. ATLANTIC	73	1,944	1	2	28	5	11	2,125	44,922	44,388	57	1,611	1,236	17
Upstate N.Y.	15	329	1	–	6	5	9	445	7,157	7,181	3	115	91	13
N.Y. City	21	711	–	2	14	–	1	659	17,497	17,352	28	1,087	878	–
N.J.	13	370	–	–	6	–	1	499	8,451	7,980	20	222	134	4
Pa.	24	534	–	–	2	–	–	522	11,817	11,875	6	187	133	–
E.N. CENTRAL	75	1,688	–	–	10	–	1	3,227	64,687	59,974	111	1,460	1,001	170
Ohio	12	332	–	–	1	–	–	732	17,810	15,777	34	274	202	13
Ind.	12	228	–	–	–	–	–	378	5,647	6,178	3	80	53	42
Ill.	36	624	–	–	4	–	–	1,073	20,791	18,578	61	895	619	87
Mich.†	11	430	–	–	5	–	1	756	14,919	13,907	11	166	94	–
Wis.†	4	74	–	–	–	–	–	288	5,520	5,534	2	45	33	28
W.N. CENTRAL	16	399	9	–	6	3	14	920	20,142	20,263	6	144	204	432
Minn.	1	57	–	–	2	–	–	125	3,430	3,689	4	43	96	89
Iowa	2	37	–	–	2	3	9	100	2,500	2,327	–	21	20	79
Mo.	4	209	7	–	1	–	2	351	8,583	8,266	1	58	50	142
N. Dak.	–	12	–	–	–	–	–	8	340	387	–	1	2	19
S. Dak.	6	28	1	–	–	–	–	35	695	754	–	1	1	41
Nebr.	–	3	1	–	–	–	–	100	1,347	1,520	–	1	5	–
Kans.†	3	53	–	–	1	–	3	201	3,247	3,320	1	19	30	62
S. ATLANTIC	137	2,819	2	–	22	31	102	4,155	99,530	99,397	103	2,524	2,387	250
Del.	–	27	–	–	–	–	2	64	1,626	1,400	3	16	4	–
Md.	13	376	–	–	6	5	13	394	11,964	12,726	5	176	185	9
D.C.	13	148	–	–	1	1	1	297	6,389	6,654	7	193	192	–
Va.	16	322	–	–	2	5	28	488	9,615	9,160	7	240	213	4
W. Va.	7	111	–	–	1	1	1	67	1,429	1,488	1	38	8	–
N.C.†	21	435	–	–	–	12	35	646	14,724	13,560	8	208	210	2
S.C.†	27	169	1	–	3	1	8	384	9,185	9,617	3	115	115	84
Ga.	10	423	1	–	–	6	14	743	19,370	19,234	36	682	599	146
Fla.†	30	808	–	–	9	–	–	1,072	25,228	25,558	33	856	861	5
E.S. CENTRAL	55	1,143	9	2	10	8	35	1,413	35,680	35,067	27	681	440	126
Ky.	20	306	2	2	4	2	5	209	4,630	4,175	2	68	52	52
Tenn.†	14	311	7	–	1	4	22	552	12,623	12,982	13	287	159	45
Ala.	10	256	–	–	5	2	7	323	10,773	10,364	6	139	65	28
Miss.	11	270	–	–	–	–	1	329	7,654	7,546	6	187	164	1
W.S. CENTRAL	79	1,483	17	–	23	6	32	1,969	53,975	57,229	92	1,869	1,370	854
Ark.	10	101	12	–	–	–	14	192	4,195	4,454	5	57	37	201
La.	28	332	1	–	3	–	–	277	9,511	9,489	28	451	268	13
Okla.	8	157	–	–	–	5	11	278	4,950	5,192	1	34	41	129
Tex.†	33	893	4	–	20	1	7	1,222	35,319	38,094	58	1,327	1,024	511
MOUNTAIN	28	368	8	11	20	–	2	721	16,445	14,714	3	197	172	37
Mont.	1	13	1	–	–	–	1	38	767	921	–	6	7	–
Idaho	–	5	–	–	1	–	–	40	695	556	–	14	2	–
Wyo.	–	3	–	–	1	–	–	6	368	340	–	5	4	–
Colo.	6	59	1	10	12	–	–	211	4,394	4,217	–	47	51	6
N. Mex.	3	66	1	–	1	–	–	75	2,135	2,084	2	33	47	21
Ariz.	16	175	–	–	3	–	–	108	4,588	3,535	–	60	34	9
Utah	–	13	5	–	–	–	–	48	861	863	–	3	9	1
Nev.	2	34	–	1	2	–	1	195	2,637	2,198	1	29	18	–
PACIFIC	99	2,019	4	2	53	–	–	2,690	70,273	67,654	43	1,884	1,971	146
Wash.†	9	102	3	–	1	–	–	149	5,936	5,083	NA	86	91	–
Oreg.	3	95	–	–	–	–	–	191	4,574	4,678	1	83	68	–
Calif.	78	1,626	1	2	44	–	–	2,248	56,308	54,440	40	1,658	1,786	144
Alaska	–	44	–	–	1	–	–	78	2,292	2,143	–	12	7	2
Hawaii	9	142	–	–	7	–	–	24	1,163	1,310	2	45	19	–
Guam														
P.R.	NA	18	–	NA	–	NA	–	NA	30	55	NA	–	–	–
V.I.†	–	115	–	–	3	–	–	64	923	1,092	14	215	203	7
Pac. Trust Terr.	–	3	–	–	1	–	–	3	79	97	1	4	6	–
	NA	10	–	NA	–	NA	–	NA	112	216	NA	–	–	–

NA: Not available.
*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.
†The following delayed reports will be reflected in next week's cumulative totals: TB: Mich. –1, Kans. –2, N.C. –3, Fla. –1, Tenn. –3; RMSF: S.C. –1, Tenn. –1; GC: Maine –2 civ. +2mil., Wis. +277 civ., S.C. +100 mil., Tenn. +1 civ., Wash. +121 mil., V.I. +5 civ.; Syphilis: N.H. +9 civ., Mass. +10, Wis. +1 civ., Tex. +1 civ., Wash. +25 civ., +1 mil.; An. rabies: Fla. +14.

TABLE IV. Deaths in 121 U.S. cities,* week ending June 9, 1979 (23rd week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	636	428	140	32	20	37
Boston, Mass.	175	103	40	16	8	12
Bridgeport, Conn.	38	25	10	–	–	1
Cambridge, Mass.	21	15	5	–	1	2
Fall River, Mass.	30	25	5	–	–	–
Hartford, Conn.	52	35	13	3	1	2
Lowell, Mass.	29	18	8	2	1	1
Lynn, Mass.	22	18	4	–	–	2
New Bedford, Mass.	18	17	1	–	–	–
New Haven, Conn.	51	31	13	3	2	6
Providence, R.I.	56	35	15	2	4	5
Somerville, Mass.	6	6	–	–	–	–
Springfield, Mass.	49	34	10	3	1	2
Waterbury, Conn.	26	20	5	1	–	1
Worcester, Mass.	63	46	11	2	2	3
MID. ATLANTIC	2,426	1,567	594	105	88	100
Albany, N.Y.	60	40	12	3	4	–
Allentown, Pa.	30	18	12	–	–	–
Buffalo, N.Y.	116	77	24	6	3	6
Camden, N.J.	33	23	8	–	1	–
Elizabeth, N.J.	19	11	7	–	–	1
Erie, Pa.†	28	18	7	1	2	2
Jersey City, N.J.	61	30	23	3	5	–
Newark, N.J.	52	26	13	6	6	1
N.Y. City, N.Y.††	1,225	799	285	60	38	44
Paterson, N.J.	24	14	8	–	1	2
Philadelphia, Pa.†	303	197	74	12	11	20
Pittsburgh, Pa.†	56	36	15	–	5	2
Reading, Pa.	44	30	13	1	–	3
Rochester, N.Y.	119	81	26	4	6	11
Schenectady, N.Y.	30	24	4	2	–	–
Scranton, Pa.†	36	21	13	–	–	–
Syracuse, N.Y.	100	63	27	3	3	1
Trenton, N.J.	41	24	13	2	1	4
Utica, N.Y.	24	19	4	–	1	2
Yonkers, N.Y.	25	16	6	2	1	1
E.N. CENTRAL	2,340	1,394	597	173	91	55
Akron, Ohio	62	41	9	8	3	–
Canton, Ohio	40	27	10	2	1	–
Chicago, Ill.	538	298	162	48	14	6
Cincinnati, Ohio	179	119	39	7	5	2
Cleveland, Ohio	159	78	47	15	11	2
Columbus, Ohio	126	62	45	8	7	2
Dayton, Ohio	118	75	29	8	3	3
Detroit, Mich.	299	159	80	34	15	9
Evansville, Ind.	52	35	9	2	2	–
Fort Wayne, Ind.	62	39	15	5	2	2
Gary, Ind.	27	11	6	6•	1	–
Grand Rapids, Mich.	53	36	11	–	5	6
Indianapolis, Ind.	156	102	36	10	3	1
Madison, Wis.	48	29	6	2	7	7
Milwaukee, Wis.	120	86	25	3	5	4
Peoria, Ill.	31	17	11	1	–	5
Rockford, Ill.	42	27	9	3	1	3
South Bend, Ind.	45	30	11	1	–	1
Toledo, Ohio	111	72	25	5	5	–
Youngstown, Ohio	72	51	12	5	1	2
W.N. CENTRAL	774	483	204	44	15	26
Des Moines, Iowa	59	30	23	3	2	1
Duluth, Minn.	19	15	4	–	–	2
Kansas City, Kans.	29	15	10	2	–	1
Kansas City, Mo.	145	98	31	6	2	8
Lincoln, Nebr.	23	16	6	1	–	2
Minneapolis, Minn.	99	54	28	9	3	1
Omaha, Nebr.	84	52	22	4	4	–
St. Louis, Mo.	182	113	46	12	3	4
St. Paul, Minn.	69	51	14	2	1	2
Wichita, Kans.	65	39	20	5	–	5

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,242	730	347	83	43	47
Atlanta, Ga.	123	72	30	12	3	–
Baltimore, Md.	157	96	39	12	8	6
Charlotte, N.C.	66	41	16	5	3	4
Jacksonville, Fla.	107	51	37	15	2	3
Miami, Fla.	171	89	55	10	11	4
Norfolk, Va.	70	39	21	2	1	5
Richmond, Va.	78	51	19	4	3	7
Savannah, Ga.	44	25	15	1	2	3
St. Petersburg, Fla.	90	79	10	–	–	4
Tampa, Fla.	76	43	23	2	5	3
Washington, D.C.	191	101	63	16	5	4
Wilmington, Del.	69	43	19	4	–	4
E.S. CENTRAL	786	429	216	64	39	38
Birmingham, Ala.	103	57	22	10	10	3
Chattanooga, Tenn.	74	45	19	5	2	2
Knoxville, Tenn.	43	29	12	1	–	1
Louisville, Ky.	124	62	37	7	15	9
Memphis, Tenn.	200	114	56	21	1	11
Mobile, Ala.	76	36	21	9	5	3
Montgomery, Ala.	40	19	8	5	3	2
Nashville, Tenn.	126	67	41	6	3	7
W.S. CENTRAL	1,161	628	326	96	55	39
Austin, Tex.	32	19	7	1	1	–
Baton Rouge, La.	19	10	8	1	–	2
Corpus Christi, Tex.	45	26	8	4	4	–
Dallas, Tex.	153	81	54	7	3	1
El Paso, Tex.	48	25	15	5	3	4
Fort Worth, Tex.	110	68	26	8	6	6
Houston, Tex.	313	153	100	35	11	13
Little Rock, Ark.	55	25	18	4	6	6
New Orleans, La.	123	66	30	13	8	–
San Antonio, Tex.	133	68	38	7	4	3
Shreveport, La.	54	31	10	6	6	1
Tulsa, Okla.	76	56	12	5	3	3
MOUNTAIN	552	312	136	42	29	16
Albuquerque, N. Mex.	58	27	19	6	1	5
Colo. Springs, Colo.	30	17	8	3	1	4
Denver, Colo.	116	65	27	7	8	3
Las Vegas, Nev.	61	25	20	11	1	1
Ogden, Utah	26	20	1	1	4	–
Phoenix, Ariz.	134	75	33	10	7	3
Pueblo, Colo.	17	10	4	–	2	–
Salt Lake City, Utah	37	21	9	1	4	–
Tucson, Ariz.	73	52	15	3	1	–
PACIFIC	1,712	1,073	398	121	46	51
Berkeley, Calif.	15	11	2	1	–	–
Fresno, Calif.	57	27	15	7	5	1
Glendale, Calif.	17	8	7	1	–	–
Honolulu, Hawaii	58	32	14	3	7	3
Long Beach, Calif.	111	67	32	6	5	3
Los Angeles, Calif.	493	314	123	34	6	16
Oakland, Calif.	48	30	9	5	2	5
Pasadena, Calif.	29	23	2	–	–	1
Portland, Oreg.	144	95	32	12	2	2
Sacramento, Calif.	49	32	8	2	4	3
San Diego, Calif.	142	88	25	11	7	2
San Francisco, Calif.	123	72	36	6	2	3
San Jose, Calif.	150	91	29	16	3	3
Seattle, Wash.	182	123	41	10	2	5
Spokane, Wash.	54	34	14	4	1	1
Tacoma, Wash.	40	26	9	3	–	–
TOTAL	11,629	7,044	2,958	760	426	409

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Data not available this week. Figures are estimates based on average percent of regional totals.

Epidemiologic Notes and Reports

Campylobacter Enteritis in a Household — Colorado

On April 14, 1979, a 24-year-old woman became ill with fever, chills, malaise, abdominal pain, and watery diarrhea. Physical examination revealed a temperature of 38.1 C and diffuse abdominal tenderness. Her stools were grossly bloody, and polymorphonuclear leukocytes were present. On April 25, *Campylobacter fetus* ss *jejuni* was isolated from a stool culture.

An investigation revealed that the patient lived in a household with 4 other adults (ages 20-26), 3 children (ages 1-3), a dog, and a cat. At the end of March the dog and cat both had diarrhea. Shortly thereafter, 1 household member became ill, and over the next 17 days every member of the household developed a syndrome of acute enteritis with abdominal cramping and diarrhea. Five persons had fever; 3 had grossly bloody stools. In 7 persons the symptoms remitted spontaneously after 3 to 7 days; the symptoms of the other (index) patient remitted after treatment with erythromycin (2 g/day for 5 days). There were no cases of diarrheal illness during this period among friends of these patients, or in neighboring households.

Cultures obtained on April 26 from 7 individuals failed to show salmonellae, shigellae, or parasites, but *C. fetus* ss *jejuni* was present in the stools of 5 persons. This organism was also present in the feces of the household dog but not in those of the household cat, nor in tap water or water from a nearby stream.

Reported by MJ Blasser, MD, HL Hardesty, MT, WL Wang, PhD, VA Hospital, Denver; TA Edell, MD, Acting State Epidemiologist, Colorado State Dept of Health; Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: *Campylobacter fetus* ss *jejuni* is now recognized as a cause of human diarrheal disease. In several large studies, this organism has been isolated from the stools of 4%-8% of patients with diarrhea—a rate of isolation comparable to those of more commonly recognized enteric pathogens such as *Salmonella* and *Shigella* (*1-4*). It is likely that as more American laboratories adopt the use of the selective media and atmospheric conditions necessary for *Campylobacter* isolation (*1,2*), the organism will prove to be a common pathogen.

The epidemiology of *Campylobacter* infections is still poorly understood. This outbreak is typical in that no source could be identified. (It could not be determined whether the pets transmitted infection to humans or whether they too acquired infection from an unknown common source.) In 1978, a large waterborne outbreak of *Campylobacter* was reported (*5*). Other outbreaks have been attributed to consumption of raw milk (*6,7*) and association with infected puppies (*8*), although evidence for transmission from these sources has been largely circumstantial.

The clinical presentation of the individuals in this outbreak is typical of those previously reported. The presence of gross blood and leukocytes in the stool suggests an invasive illness. Previously, such invasion had been thought to be limited to the small intestine; however, a recent report attributes to *Campylobacter* infection a syndrome of acute colitis, with clinical, sigmoidoscopic, radiographic, and histologic features similar to ulcerative colitis (*9*).

References

1. Butzler JP, Deklyser P, Detrain M, Dehaen R: Related vibrio in stools. J Pediatr 82:493-495, 1973
2. Skirrow MB: *Campylobacter* enteritis: A "new" disease. Br Med J 2:9-11, 1977
3. Pai CH, Sorger RT, Lackman L, Sinai RE, Marks MI: *Campylobacter* gastroenteritis in children. J Pediatr 94:589-591, 1979
4. Steel TW, McDermott S: *Campylobacter* enteritis in south Australia. Med J Aust 2:404-406, 1978
5. MMWR 27:207, 1978

Campylobacter enteritis – Continued

6. MMWR 27:226, 1978
7. Taylor PR, Wernstein WM, Bryner JH: *Campylobacter fetus* infection in humans: Association with raw milk. Am J Med 66:779-783, 1979
8. Blaser MJ, Cravens J, Powers BW, Wang WL: *Campylobacter* enteritis associated with canine infection. Lancet 2:979-981, 1978
9. Lambert ME, Schofield PF, Ironside AG, Mandal BK: *Campylobacter* colitis. Br Med J 1:857-859, 1979

Epidemiologic Notes and Reports

Suspected Vaccine-Induced Feline Rabies – Georgia

Two cases of rabies in cats, possibly induced by modified live virus vaccine, have been reported from Ringgold, Georgia. These are the first rabies cases in terrestrial mammals reported in the Ringgold area in over 20 years.

On March 3, 1979, a 10-year-old cat that had been previously vaccinated against rabies in 1970 and 1971 (vaccine-type unknown) was revaccinated at a public clinic in Ringgold with a modified live virus (MLV) vaccine approved for use in dogs, cats, cattle, horses, sheep, and goats. On March 4, 1979, the owners of the cat noticed that the animal was limping slightly on its right rear leg, but the limp was not noticed again until March 19.

The limping was more severe by March 20, and the animal began to drag its right rear leg. Examination at a veterinary clinic disclosed that the animal had no pain in the affected leg and only slight pain in the lower lumbar region. The animal had a temperature of 40 C, was alert, and ate and drank well.

By March 25, both hind legs and the tail were showing rigid paralysis. Ascending paralysis continued, and by March 27 extensor paralysis was present in all legs. The animal was humanely killed at the Small Animal Clinic, School of Veterinary Medicine, University of Georgia, Athens, Georgia, on March 27. Rabies virus was found in the brain tissue by fluorescent antibody (FA) examination and mouse inoculation tests at the Georgia Department of Human Resources (DHR) and CDC laboratories.

On May 4, the veterinarian who had vaccinated this cat observed another cat brought to his clinic because of a similar illness on May 1. The veterinarian had inoculated this cat on August 23, 1978, and again on April 17, 1979, with the same type of MLV vaccine used in the first animal. This second cat was also referred to the School of Veterinary Medicine, University of Georgia, where the illness progressed as in the previous cat and the animal was humanely killed on May 15. Rabies virus was identified in the brain tissue by FA examination at the Georgia DHR and CDC laboratories.

Ten persons underwent antirabies treatment because of exposure to the first cat. Two persons were reported to have been scratched by the second cat, but no postexposure antirabies treatment was given.

Reported by RK Sikes, DVM, State Public Health Veterinarian, and the Virus Laboratory, Georgia Department of Human Resources; J Esh, DVM, School of Veterinary Medicine, University of Georgia, Athens; Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Cases of suspected vaccine-induced rabies have been reported recently in dogs, primarily from use of low-egg-passage, chick-embryo-origin (CEO-MLV) rabies vaccine (*1*). Although cases of rabies have been reported in cats from use of MLV vaccines not approved for cats, these are the first suspected cases resulting from an MLV vaccine approved for use in this species of animal. Further studies are being done in an attempt to determine if the virus isolates are wild or vaccine strains.

Reference

1. MMWR 27:224-225, 1978

Poliomyelitis Surveillance — United States, Canada

One additional case of suspected paralytic poliomyelitis due to the type 1 virus has now been confirmed in an unvaccinated Amish patient, bringing the overall total of epidemic-associated cases in 1979 to 13 (Pennsylvania 7; Wisconsin 2; Iowa 2; Canada 2). The latest patient is from Lancaster County, Pennsylvania, where 2 previously reported patients reside. In addition, 3 states (Wisconsin, Iowa, and—for the first time—Missouri) have each reported single suspected cases of paralytic polio in unvaccinated Amish individuals.

Immunization Programs: The recently reported cases of polio among Amish persons in Pennsylvania, Iowa, and Wisconsin have led health authorities to consider the entire U.S. Amish population to be at risk of poliomyelitis infection. Consequently, state health departments in the 25 states where Amish persons reside plan to contact and immunize all Amish persons. Some of the immunization programs in the Amish communities are now in progress and will continue. For example, in Lancaster County—the heart of the Amish community in Pennsylvania—over 6,000 of the 12,000 Amish population have recently received at least 1 dose of vaccine.

In response to the initial case of poliomyelitis in Pennsylvania last January, Wisconsin began to offer poliovirus vaccine to Amish in that state. In the 3 communities where cases have been reported, approximately two-thirds of the Amish have subsequently received vaccine.

In Buchanan County, Iowa, where 2 cases of polio have occurred among Amish persons, approximately 50% of the Amish have received at least 1 dose of vaccine.

Immunization clinics for the Amish in Missouri had already been planned before the suspected case from that state was reported on June 5. A clinic in the affected area, Audrain County, was held on June 1, the same day paralysis developed in the suspected case.

In some areas where poliovirus has been found, large-scale immunization programs have been held for both Amish and non-Amish persons. In Mifflin County, Pennsylvania (where 2 paralytic cases occurred in Amish persons and 1 nonparalytic case occurred in a non-Amish person), a 4-day communitywide immunization program for the general population was conducted May 17-20. More than 20,000 of 45,000 residents received polio vaccine. Another special 3-day immunization program for the general population was conducted June 2-4 in Lancaster County, where 2 paralytic cases occurred in Amish persons and 1 nonparalytic case occurred in a Mennonite person. More than 147,000 of approximately 348,000 residents received polio vaccine during this program.

Reported by R Gens, MD, WE Parkin, DVM, DrPH, State Epidemiologist, Pennsylvania Dept of Health; LA Wintermeyer, MD, State Epidemiologist, Iowa State Dept of Health; HD Donnell Jr, MD, State Epidemiologist, Missouri State Dept of Social Services; JP Davis, MD, State Epidemiologist, Wisconsin State Dept of Health and Social Services; Immunization Div, Bur of State Services, Viral Diseases Div, Bur of Epidemiology, CDC.

The Morbidity and Mortality Weekly Report, circulation 90,000, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333 OFFICIAL BUSINESS

Postage and Fees Paid
U.S. Department of HEW
HEW 396

HEW Publication No. (CDC) 79-8017